Saari, Christopher A - DNR[Christopher.Saari@wisconsin.gov] To: Egan, Robert[egan.robert@epa.gov] Cc: Hanson, Kristen From: Sent: Tue 3/15/2016 2:59:33 PM Subject: RE: Tower Standard - Hydraulic Conductivity Cost Estimate removed.txt Thanks Chris, Before sending comments to Dave, I thought I would pass along a few thoughts. 1) Please remove the three up gradient Tribal Wells from hydraulic conductivity testing. This isn't needed and we have concerns about Dave's access to these wells (cross contamination, etc) 2) Wow! The going rate for a field tech to administer a slug test seems high to me. My general comments to Dave will be Notification and Coordination with Tribal Staff for Onsite Presence during work. 1) The data measurements be included Dave's submittal (static wl, wl readings from datalogger during slug test) Results and Reports be provided to the Tribe within a reasonable timeframe and concurrent with any WDNR submittal.

Kristen

From: Saari, Christopher A - DNR [mailto:Christopher.Saari@wisconsin.gov]

Sent: Tuesday, March 15, 2016 9:00 AM

To: Hanson, Kristen

Subject: FW: Tower Standard - Hydraulic Conductivity Cost Estimate

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Chris Saari

Phone: (715) 685-2920

Christopher.Saari@Wi.gov

From: Dave Larsen [mailto:dlarsen@reiengineering.com]

Sent: Wednesday, February 10, 2016 12:16 PM

To: Saari, Christopher A - DNR

Subject: Tower Standard - Hydraulic Conductivity Cost Estimate

Chris – I have attached a copy of the hydraulic conductivity estimate for Tower. The breakdown is as follows:

U&C Portion

- Primary Mob and overnight (the U&C rate was used rather than T&M)
- Incremental Mob additional charge for 2nd person to assist during testing
- Change order

Variance Portion:

- Complete Hc calculations at all 17 wells (assume 2 hours per test)
- Data interpretation: download well specific data and conduct Hc calculation. Data to be presented will include copy of data download graph and conductivity calculation
- Datalogger charge: We will be using InSitu Level Troll 500 loggers. The loggers will be atmospherically vented and will automatically compensate for barometric pressure fluctuations. We will also use a water level indicator to collect manual measurements to ensure data is calibrated.

I would like to discuss preferred methods with you. Typically we run slug tests (introduce stainless slug and allow water levels to stabilize and pull the slug and measure recovery). Some of the wells probably will recover too soon for this method and I want to make sure LDF/EPA are on board with our methods.

Thank you,

David N. Larsen P.G

Hydrogeologist / Professional Geologist



